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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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25105	7590	06/18/2008	EXAMINER	
Vesuvius Crucible Company			KIM, SUN U	
250 Park West Drive			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/516,443	JUMA, KASSIM
	Examiner	Art Unit
	JOHN KIM	1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 May 2008.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,4 and 22-50 is/are pending in the application.

4a) Of the above claim(s) 31-50 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,4 and 22-30 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/06/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application

6) Other: _____

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/2/08 has been entered.

2. Claims 31-50 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 7/11/07.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 4 and 22-30 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specification describes that a graphitized carbon is present in an amount of up to 15% rather than the graphitized carbon is produced from graphitizable carbon precursor present in a positive amount up to 15% by weight.

5. Claims 1, 4 and 23-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specification describes that a graphitized carbon is present in an amount of

up to 15% rather than the graphitized carbon is produced from graphitizable carbon precursor present in a positive amount up to 15% by weight. Up to 15% includes 0% and a positive amount was not in the original description.

6. Claims 1, 4 and 22-30 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for making graphitized carbon by firing the impregnated foam in non-oxidizing and/or reducing atmosphere at a temperature in the range of from 500 to 1000 degree Celsius, does not reasonably provide enablement for firing the impregnated foam outside above range. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. Specification discloses that graphitized carbon is made by firing the impregnated foam in non-oxidizing and/or reducing atmosphere at a temperature in the range of from 500 to 1000 degree Celsius (see pages 9-10). However, claims 1, 4 and 23 claim a firing temperature of up to 1000 degree Celsius which includes 0 to 499 degree Celsius.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 4 and 22-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Bell et al '047 (US 2007/0090047 A1).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Bell et al ‘047 teaches the claimed invention in claims 23-33. Bell et al ‘047 teaches the substantially identical process described in pages 9-10 of the specification of the instant application to form a network of graphitized carbon (see paragraphs 0073-0078; claims 13-17).

9. Claims 1, 4 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Bell et al ‘084 (US Patent No. 7,138,084 B2).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1 and 4, Bell et al ‘084 teach a ceramic filter for molten metal filtration comprising a ceramic powder and fibers bonded by a network of graphitizable carbon (see col. 2, line 66 – col. 5, line 42; claims 1-2, 7). Bell et al ‘084 teaches the substantially identical process described in pages 9-10 of the specification of the instant application to form a network of

graphitized carbon (see col. 4, lines 1-67; col. 5, line 48 - col. 6, line 13; col. 9, line 59 - col. 11, line 23; claims 1-6).

Regarding claims 22, Bell et al '084 teach a ceramic powder of alumina (see col. 5, lines 1-10).

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 4, 22, 24-26, 27 and 29 are rejected under 35 U.S.C. 102(b) as being as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wismer et al (US Patent No. 3,574,646).

Regarding claims 1 and 4, Wismer et al teach a ceramic filter (see col. 1, line 59) comprising a ceramic powder and fibers bonded by a network of graphitizable carbon wherein a network of graphitizable carbon is formed by heating a mixture of ceramic powder and fibers with organic resin binder at a high temperature in a range of about 800 – 1600 degree Fahrenheit (426 – 871 degree Celsius) which transforms the mixture into a foamed char inherently having a network of graphite carbons (see col. 2, line 56 – col. 4, line 75; col. 11, lines 4-63). Note that the substantially identical process is described in pages 9-10 of the specification to form a network of graphitized carbon. Wismer et al is silent as what atmosphere the mixture is fired in and the resultant graphitized carbon would be materially same as claimed graphitized carbon resulting from fired graphitizable carbon without persuasive evidence. Recitation of “for molten metal filtration” in the preamble of claims 1 and 4 are an intended use. It has been held that a

recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claims 22, Wismer et al teach a ceramic powder of silica (see col. 4, lines 51-55).

Regarding claims 24 and 26-27, Wismer et al teach ceramic fibers including aluminum silicate fibers (see col. 6, lines 31-35).

Regarding claims 25 and 29, Wismer et al teach that the filter has 2 weight percent fibers in EXAMPLE XXVII (see col. 24, line 45-65) wherein asbestos fiber has 34.1g over total weight of a base mixture of 1719.3 g.

12. Claims 1, 4 and 22-30 are rejected under 35 U.S.C. 102(b) as being as being as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gadkaree et al (US Patent No. 5,750,026).

Regarding claims 1 and 4, Gadkaree et al teach a ceramic filter comprising a ceramic powder and fibers bonded by a network of graphitizable carbon wherein a network of graphitizable carbon is formed by heating a mixture of ceramic powder and fibers with organic resin binder at a high temperature in a range of about 600 – 1000 degree Centigrade which creates a network of graphite structure by phenolic resole resin (see col. 9, line 6 – col. 14, line 9). Note that the substantially identical process is described in pages 9-10 of the specification to form a network of graphitized carbon. Gadkaree et al is silent as to what atmosphere the mixture is fired in and the resultant graphitized carbon would be materially same as claimed graphitized carbon resulting from fired graphitizable carbon without persuasive evidence. It has been held

that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claims 22, Gadkaree et al teach a ceramic powder of alumina (see col. 11, lines 42-57).

Regarding claims 23, Gadkaree et al teach that the filter has about 10 wt % of graphitizable carbon of phenolic resole resin when 50% cellulose fibers, 30% inorganic filler, 10% of organic binder are formed with 10 wt % of phenolic resole as a balance (see col. 12, lines 27-33).

Regarding claims 24 and 26-27, Gadkaree et al teach ceramic fibers including aluminum silicate fibers (see col. 11, lines 22-28).

Regarding claims 25 and 29, Gadkaree et al teach that the filter has 8 weight percent aluminosilicate fibers (see col. 13, line 22-24).

Regarding claim 28, Gadkaree et al teach that the filter has polyester fibers (see col. 11, lines 58-64; col. 13, lines 4-5).

Regarding claim 30, Gadkaree et al teach that the fibers have a length of 420 microns or 0.42 mm (see col. 12, lines 2-4; col. 10, lines 57-61).

13. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The

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filings of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

14. Claims 1, 4 and 22-30 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 23, 24 and 25-33 of copending Application No. 11/584,002 or Bell et al '047 (US 2007/0090047 A1). This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. Claims 1, 4 and 22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 7 of Bell et al '084 (U.S. Patent No. 7,138,084 B2). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2 and 7 of Bell et al '084 fully suggests claims 1, 4 and 22 of the instant application.

17. Claims 4 and 26 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12 and 20-21 of copending Application No. 10/516,438 or US 2005/0263449 A1. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 12 and 20-21 of copending Application No. 10/516,438 or US 2005/0263449 A1 fully suggest claims 4 and 26 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

18. Claims 4 and 22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 7 of copending Application No. 10/362,751 or US 2004/0128857 A1. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2 and 7 of copending Application No. 10/362,751 or US 2004/0128857 A1 suggest claims 4 and 26 of the instant application. Claimed fibers are included in “particles”.

19. The declaration under 37 CFR 1.132 filed 5/6/08 is insufficient to overcome the rejection of claims 1, 4 and 22-30 based upon each of the prior art cited above in paragraphs 8-9 and 11-12 as set forth in the last Office action because: the declaration does not provide experimental evidence of comparison results in terms of physical or chemical properties between the claimed graphitized carbon vs the graphitized carbon of the prior arts cited in the rejection. Declaration generally describes the distinctive forms of carbon. In paragraph 12, ‘084 patent would not preclude other forms of carbon other than a diamond form. In paragraph 16, the value of minimal shrinkage occurring in the graphitized carbon is not disclosed as well as current

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manufacturer that makes filters up to 300 mm from graphitizable carbon is also not disclosed; furthermore, filter up to 300 mm includes 0 mm which is not a viable filter.

20. Applicant's arguments with respect to claims 1, 4 and 22-30 have been considered but are moot in view of the new ground(s) of rejection.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN KIM whose telephone number is (571)272-1142. The examiner can normally be reached on Monday-Friday 7 a.m. - 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*/John Kim/
Primary Examiner, Art Unit 1797*

JK
6/14/08